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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/438,645 | 11/12/1999 | BRIAN GARRY JENKIN | JA999-715 | 9655 |

7590 03/30/2004
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1717 West Sixth Street
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EXAMINER

TODD, GREGORY G

| ART UNIT | PAPER NUMBER |
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2157

DATE MAILED: 03/30/2004

22

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/438,645 | JENKIN, BRIAN GARRY | |
| | Examiner | Art Unit | |
| | Gregory G Todd | 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6,10,12-18 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6,10,12-18 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is a fourth office action in response to applicant's amendment filed, 06 January 2004, of application filed, with the above serial number, on 12 November 2000 in which claims 2, 3, and 6 have been amended. Claims 2-6, 10, 12-18, and 22 are therefore pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (hereinafter "Wang", 6,446,028) in view of Mogul et al (hereinafter "Mogul", 6,243,761).

4. As per Claim 2, Wang discloses a method for testing performance of a server running a chosen computing application, wherein Wang discloses:

(a) forming on the client a first collection of a number of live maps (packet requests sent real-time), wherein such a live map includes i) identification of a transaction for actual processing of the transactions by the server running a chosen computing application (at least col. 7, lines 4-18), and ii) data for the chosen application,

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including data formed at the client application layer, and wherein the chosen computing application of the transaction for such a live map is the same (at least col. 3, lines 10-16, 43-57) for each of the live maps in the collection (at least col. 2, lines 6-16; col. 5, lines 9-26);

(b) passing the collection from the client application layer to the client middleware layer (inherent - request from client application to be processed into packet form [middleware layer]; at least col. 7, lines 4-18);

(c) transmitting a first processing load from the client to the server running said computing application, wherein the processing load includes the first collection of the number of said live maps for a plurality of said transactions (server processing request consisting of multiple packets) (at least Fig. 6; col. 6, lines 48-63);

(d) measuring one or more performance criteria resulting from said server actually processing said load (at least Fig. 7; col. 2, lines 17-29; col. 7, lines 19-30; col. 5, lines 27-55); and

(e) changing the first collection of live maps and transmitting a next processing load from the client to the server, the next processing load including the changed collection of live maps in order to selectively vary said processing loads, wherein the changing includes changing the number of said live maps and types of said transactions in the first collection of live maps transmitted to said server, and wherein said measuring step (c) is repeated for the next processing load (processing additional database queries via server requests from the client) (at least col. 8, lines 21-31).

Wang fails to explicitly disclose the server being monitored doing the actual measuring of the performance data. However, the use and advantages for using such a measuring system is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Mogul. Mogul discloses a server monitoring it's own performance and dynamically changing it's processing accordingly (at least Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Mogul's server measuring itself into Wang's system as this would allow Wang's performance measuring monitor 'server' to execute on the server being measured to reduce the need for an extra server in Wang's system as the extra server, although 'mirrored', could hinder performance itself on the network, and as Mogul discloses, the server knowing real-time performance could alter it's output according to the measurements.

5. As per Claim 3.

(e) comparing performance criteria against predetermined performance measures to determine whether server's capacity is satisfactory (overall performance monitoring) (at least col. 1, lines 31-46, 56-60; col. 4, lines 28-32).

6. As per Claim 4.

performance criteria include average response time for a transaction within such a load (approximate total transit time) (at least Fig. 7; col. 2, lines 17-29).

7. As per Claim 5.

performance criteria include the proportion of server CPU time taken by a transaction of such a load (server processing time) (at least Fig. 7; col. 7, lines 19-30).

8. As per Claim 6.

wherein step (c) comprises for each transaction within said load, returning a result to said client (at least Fig. 5); and

measuring, by said client or by said server, the one or more performance criteria responsive to the processing of said load by said server (at least Fig. 7; col. 2, lines 17-29; col. 7, lines 19-30; col. 5, lines 27-55).

9. Claims 10, 12-18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (hereinafter "Wang", 6,446,028) in view of Mogul et al (hereinafter "Mogul", 6,243,761) and further in view of Chen et al (hereinafter "Chen", 5,812,780).

10. As per Claim 10, Wang discloses a system for testing server performance, wherein Wang discloses:

(a) a server running a chosen computing application (at least col. 3, lines 43-57);

(b) a client emulation server ("client") representing a plurality of individual client computing stations, wherein a computing operation performed by the client resides in an application layer that communicates with a middleware layer on the client, said client emulation server including a first collection of a number of live maps, wherein a live map includes i) identification of a transaction for actual processing of the transactions by the server running the chosen computing application (at least col. 7, lines 4-18), and ii) data for the chosen application, and wherein the chosen computing application of the

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transaction for such a live map is the same (at least col. 3, lines 10-16, 43-57) for each of the live maps in the collection (at least col. 2, lines 6-16; col. 5, lines 9-26); and

(c) a communications connection between said client and said server (at least col. 3, lines 43-47), wherein said client is operable to transmit a first processing load to said server via said communications connection, the processing load including the first collection of said live maps for a plurality of said transactions, said server is operable to actually process said load (server processing request consisting of multiple packets) (at least Fig. 6; col. 6, lines 48-63), and wherein said client is further operable to change the first collection of live maps and transmit a next processing load to the server. the next processing load including the changed collection of live maps, in order to selectively vary said processing loads, wherein the changing includes changing the number of said live maps and types of said transactions in the first collection of live maps, and the first server or client is operable to repeat the measuring for the next processing load (processing additional database queries via server requests from the client) (at least col. 8, lines 21-31).

Wang fails to explicitly disclose the server being monitored doing the actual measuring of the performance data. However, the use and advantages for using such a measuring system is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Mogul. Mogul discloses a server monitoring it's own performance and dynamically changing it's processing accordingly (at least Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Mogul's server measuring itself into Wang's

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system as this would allow Wang's performance measuring monitor 'server' to execute on the server being measured to reduce the need for an extra server in Wang's system as the extra server, although 'mirrored', could hinder performance itself on the network, and as Mogul discloses, the server knowing real-time performance could alter it's output according to the measurements.

Wang and Mogul fail to explicitly disclose a client representing a plurality of individual client computing stations, said client including a first collection of a number of live maps. However, the use and advantages for using such a simulation model is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Chen. Chen discloses a single computer/workstation acting as multiple systems and requests under a simulation (at least Chen col. 4, lines 34-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Chen's single workstation representation with Wang and Mogul's collection of live maps (at least Wang col. 2, lines 6-16; col. 5, lines 9-26) because this would ease the process of testing server performance by having a single system acting as multiple systems when multiple systems are not an alternative due to expenses or unforeseen client expansion.

11. As per Claim 12

wherein said server compares said measured performance criteria against predetermined performance measures to determine whether the server has satisfactory capacity (overall performance monitoring) (at least col. 1, lines 31-46, 56-60; col. 4, lines 28-32).

12. As per Claim 13.

wherein said server stores a file of said performance data measures
(measurement database) (at least Fig. 9).

13. As per Claim 14.

wherein said client stores a file of said performance data measures (client
measurement stub code) (at least Fig. 3).

14. As per Claim 14.

server produces an output representing performance data measures (at least
Fig. 9).

15. As per Claim 15.

wherein said performance data criteria includes the average response time for a
transaction within one of said loads (approximate total transit time) (at least Fig. 7; col.
2, lines 17-29).

16. As per Claim 16.

wherein said performance data criteria includes the proportion of server CPU
time taken by such a transaction of said loads (server processing time) (at least Fig. 7;
col. 7, lines 19-30).

17. As per Claim 17.

wherein said server has connection to one or more database servers, said
database servers being operable to execute portions of said load transactions (at least
Fig. 5, 9).

18. As per Claim 18.

wherein said server comprises a plurality of servers, and each of said server plurality has connection to one or more database servers, said database servers being operable to execute portions of said load transactions (at least Fig. 5, 9; col. 11, lines 1-2).

19. As per Claim 22.

at least one database in communication with said server (at least Fig. 5, 9).

Response to Arguments

20. The applicant argues, in substance, that a) *Who measures performance*, Applicant argues measuring is performed by the client or the server and Wang discloses a third system to measure; b) *Homogenous execution*, Wang does not suggest the transactions of the live maps being for the same computing application and in fact, uses more than one application; c) *Iterating*, the collection on the client is changed and transmitted from client to server; d) *Live maps*, Friedrich and Wang do not disclose measuring of application layer live maps.

21. Applicant's arguments, see pp. 6-7, filed 06 January 2004, with respect to the a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made of Wang in view of Mogul et al.

22. Applicant's arguments with respect to b) and c) filed 06 January 2004 have been fully considered but they are not persuasive

In response to b), as previously noted, Wang clearly discloses the server application being the SAP R/3 server application (at least col. 3, lines 10-16, 43-57), but also states it could be any application and is not limited to the SAP R/3. Also, that the client uses a similar associated SAP R/3 client application program. Thus the performance of the server is measured and monitored with the same, thus chosen, applications running on both the server and client. Applicant further argues that Wang does not state that the program 181 of Fig. 2 is the only program running in server 180 and that there could be more applications running. However, the claims are merely testing the performance of a server running a chosen application and there is no claim language to suggest there being only one single application running on the server at any time, but rather that the performance of an application is being tested while there *may or may not* be programs running in the background.

In response to c), Wang clearly discloses, as previously cited (at least col. 8, lines 21-31), more complex transactions taking place via the client making requests to the server, which thus must make additional requests to a database adding request time, processing time and response transit time and thus varying the requests to calculate additional server performance.

23. Applicant's arguments with respect to d) have been considered but are moot in view of the new ground(s) of rejection.

Wang discloses using an application such as the SAP R/3 application and measuring via the performance measurement monitor, more than just the TCP and IP layers, and being able to interpret the packets from specifically the SAP R/3 program and data from that program, thus measuring data from Wang's application layer (at least col. 6, lines 5-27). Further it is noted that there is no claim language to suggest the measuring of the one or more performance criteria actually measuring data *formed at the application* layer. Thus examiner withdrawals previous office actions use of Wang in view of Friedrich as the examiner oversighted Wang's teaching of this.

Conclusion


24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Friedrich et al, Kaler et al, Mukherjee et al (paragraph 23), Baghai et al, Caccavale et al, Davies et al, Sherman et al, Chen et al, Wagle, Dantressangle, Braddy, Congdon, Hoyer et al, Eilert et al, and Richardson are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

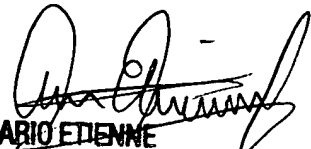
25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd 
Patent Examiner

1. Technology Center 2100


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